REMARKS/ARGUMENTS

Claims 1-22 are pending in the application. The Examiner requested restriction to one of the inventions and Applicants elected, without traverse, to prosecute Group II, "drawn to a method for separating and detecting components in a complex biological sample". Applicants hereby withdraw claims 1-13, drawn to a multiplexed capillary electrophoresis system. Applicants reserve the right to prosecute the non-elected group in one or more divisional applications.

Applicants have amended claims 14, 20 and 21 and cancelled claim 19. Claims 14-18 and 20-22 are therefore under examination.

Claim 18 was objected to because the terms "HPLC" and "FPLC" were not defined in the specification. Applicants respectfully submit that these terms are well known in the art of protein separation. HPLC stands for high-performance liquid chromatography (or high pressure liquid chromatography), while FPLC stands for fast protein liquid chromatography (see http://en.wikipedia.org/wiki/HPLC and http://en.wikipedia.org/wiki/FPLC). Applicants nontheless propose to amend the specification and clarify the terms to avoid any ambiguity. Applicants submit that the amendments do not introduce new matter and earniestly request the Examiner enter the amendments. Applicants submit that the objection to claim 18 should now be withdrawn.

Claims 14, 18, 19 and 22 stand rejected under 35 U.S.C. §102(b) by Issaq et al. with evidence from Nelson et al. (US 6,074,827). Applicants respectfully disagree.

Applicants first submit that the claims have been amended. Claim 14 has been amended to incorporate the limitation of the now cancelled claim 19. In addition, claim 14 is also amended to clarify that the methods relate to the detection of proteins, and the complex biological sample meant to be a cell lysate. Further, the claim is amended to state that the capillary gel electrophoresis is performed using a size-based sieving matrix. Applicants submit that the amendments are fairly based on the specification, see Examples 2, 3 and 4.

Applicants submit that Issaq et al. disclosed a two dimensional separation method for peptides from a protein digest of two proteins, cytochrome c and myoglobin (see Abstract). The second dimension used by Issaq et al. is charge based capillary electrophoresis (i.e., capillary zone electrophoresis, see page 1133, column two, line 5 from bottom, disclosing separation buffer as 20 mM borate, pH 9.0). As such, Issaq et al. does not anticipate the claimed invention.

Claims 15-17 stand rejected under 35 U.S.C. §103(a) as being obvious over Issaq et al. Applicants respectfully disagree. As discussed earlier, Issaq et al. does not disclose two dimensional separation of proteins from a cell lysate using, as the second dimension, a size-based capillary gel electrophoresis system. These claims further require that the samples are labeled (claims 15 and 16) or that a control is included in the second dimension separation which control is labeled with mobility-matched dyes (claim 17). While Issaq et al. teach the use of an allura red dye to create a fluorescence spectra, these are dyes and are unrelated to the claimed invention. Applicants submit that claims 15-17 are not obvious.

Claims 20 and 21 stand rejected under 35 USC 103(a) as being obvious over Issaq et al. in view of Kozulic (US 5,840,877). Applicants respectfully disagree. The major difference between the claimed invention and Issaq et al. has been discussed above. Kozulic teaches that galactomannan or dextran can be used as an additive to enhance the selectivity for separation (abstract, column 14, lines 7-10). Kozulic does not teach the use of galactomannan or dextran alone as a separation matrix. The claimed invention, on the other hand, uses galactomannan or dextran as the sieving matrix. Applicants submit that claims 20 and 21 are not obvious over Issaq et al. in view of Kozulic.

Applicants respectfully assert that the claims are in allowable form and earnestly solicit the allowance of the claims 14-18 and 20-22.

Early and favorable consideration is respectfully requested.

Respectfully submitted,

GE Healthcare Bio-Sciences Corp.

By: /Yonggang Ji/
Yonggang Ji
Reg. No.: 53,073
Agent for Applicants

GE Healthcare Bio-Sciences Corp.
800 Centennial Avenue
P. O. Box 1327
Piscataway, New Jersey 08855-1327

Tel: (732) 980-2875
Fax: (732) 457-8463

I hereby certify that this correspondence is being uploaded to the United States Patent and Trademark Office using the Electronic Filing System on May 11, 2009.

Signature: /Melissa Leck/

Name: Melissa Leck

T:\Legal\Pat_Dept\IP Dept\Response to Office Action\PB\2009\PB0217 (05-11-09).doc